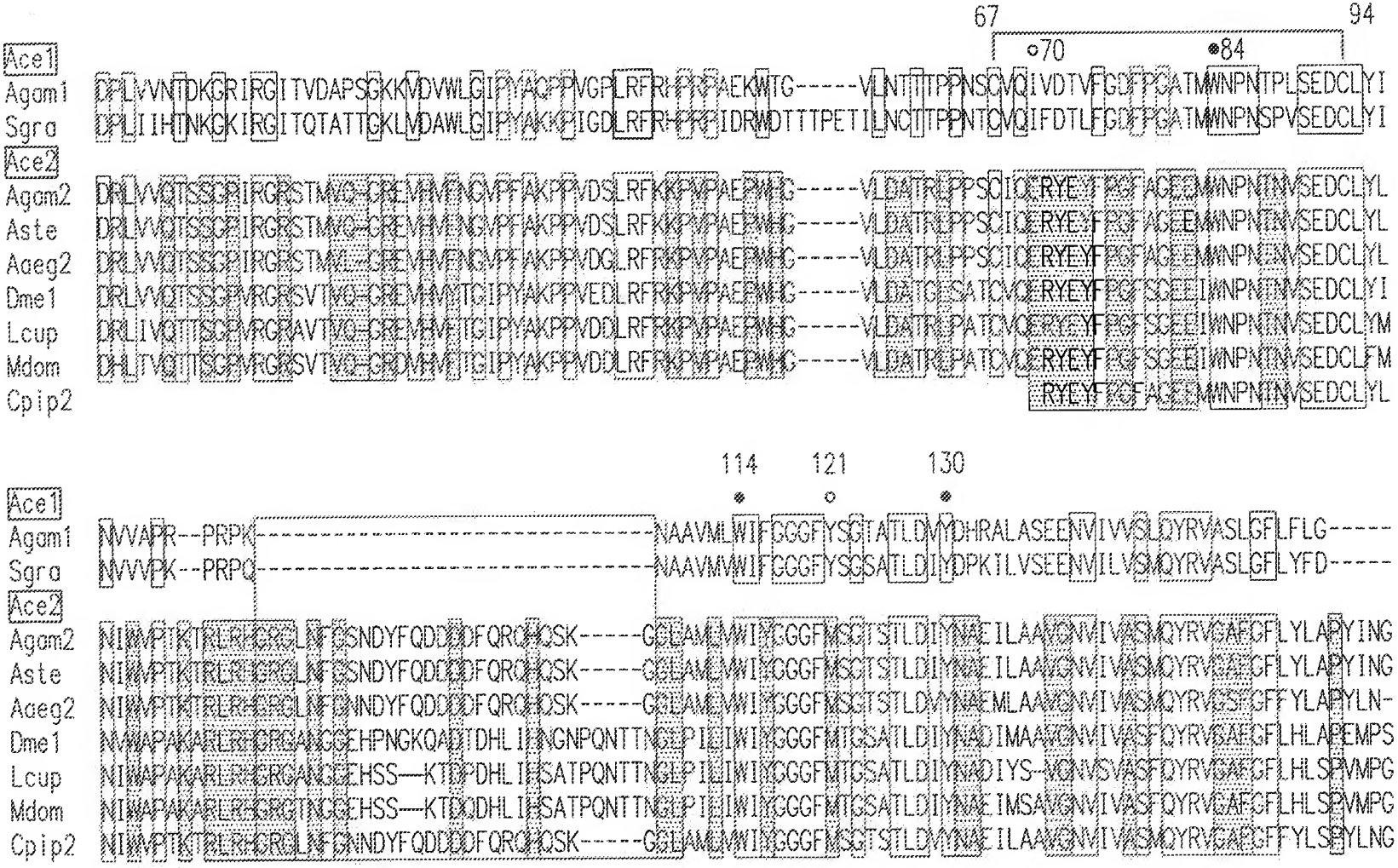
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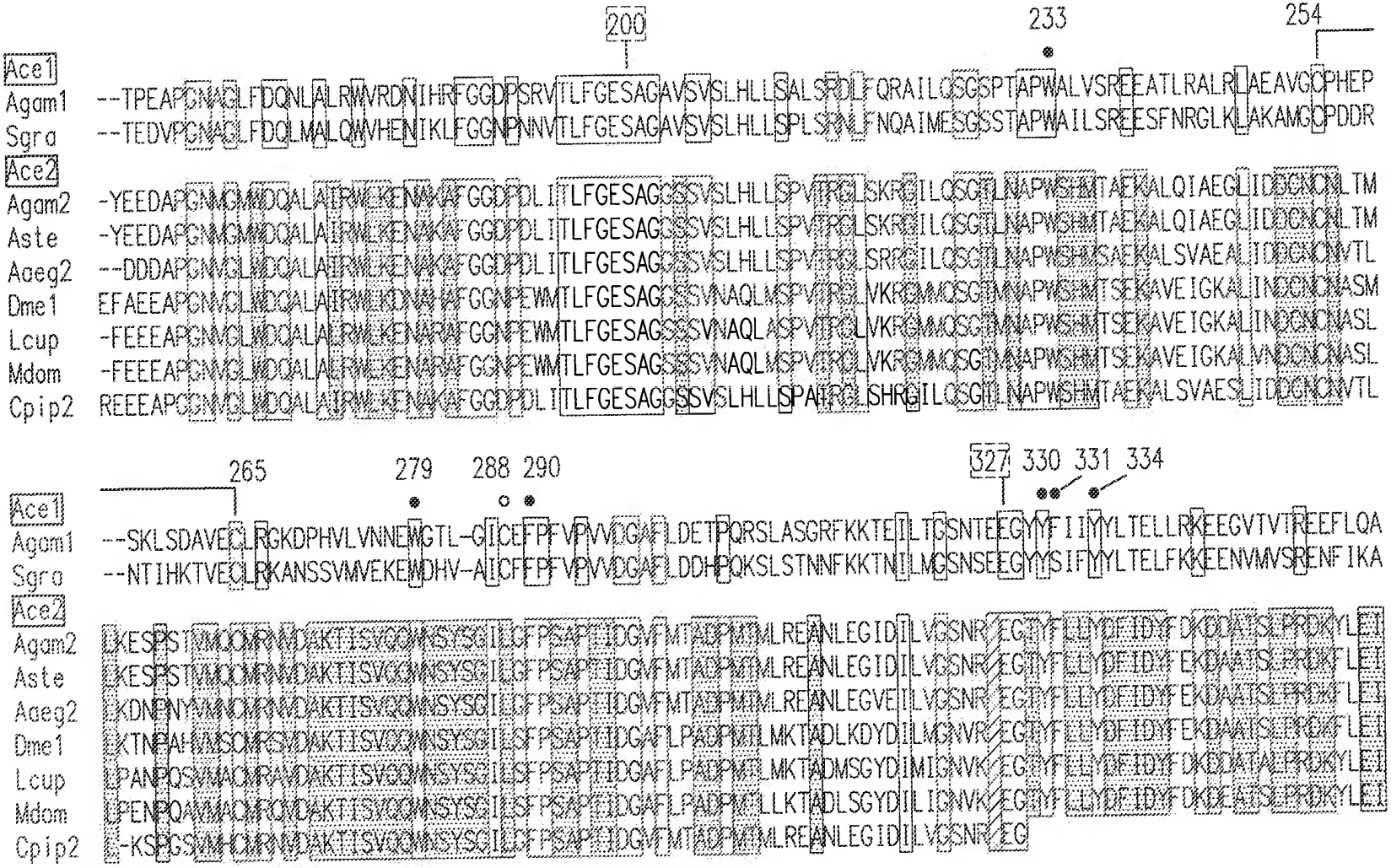
94
70
84
Ace1
Agam1
Sgra
Ace2
Agam2
Aste
Aaeg2
Dme1
Lcup
Mdom
Cpip2
114
121
130

Fig.1A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Ace1
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Sgra --TEDVPGNAGLFDQLMALQWVHENIKLFGGNPNNVTLFGESAGAVSVSLHLLSPLSRNLFNQAIMESGSSTAPWAILSREESFNRGLKLAKAMGCPDDR
Ace2
Agam2 -YEEDAPGNMGMMDQALALRWVKENVAAFGGDPDLITLFGESAGGSSVSLHLLSPVTRGLSKRGILQSGTLNAPWSHMTAEKALQIAEGLIDDCNCNLTM
Aste -YEEDAPGNMGMMDQALALRWLKENVKAFGGDPDLITLFGESAGGSSVSLHLLSPVTRGLSKRGILQSGTLNAPWSHMTAEKALQIAEGLIDDCNCNLTM
Aaeg2 --DDDAPGNMGLMDQALALRWLKENVKAFGGDPDLITLFGESAGGSSVSLHLLSPVTRGLSRRGILQSGTLNAPWSHMSAEKALSVAEALIDDCNCNVTL
Dme1 EFAEEAPGNMGLMDQALALRWLKDNVHAFGGNPEWMTLFGESAGGSSVNAQLMSPVTRGLVKRGMMQSGTMNAPWSHMTSEKAVEIGKALINDCNCNASM
Lcup -FEEEAPGNMGLMDQALALRWLKENARAFGGNPEWMTLFGESAGSSSVNAQLASPVTRGLVKRGMMQSGTMNAPWSHMTSEKAVEIGKALINDCNCNASL
Mdom -FEEEAPGNMGLMDQALALRWLKENARAFGGNPEWMTLFGESAGSSSVNAQLMSPVTRGLVKRGMMQSGTMNAPWSHMTSEKAVEIGKALVNDCNCNASL
Cpip2 REEEAPGNMGLMDQALALRWLKENVKAFGGDPDLITLFGESAGGSSVSLHLLSPATRGLSHRGILQSGTLNAPWSHMTAEKALSVAESLIDDGNCNVTL
265
279
288
290
327
330
331
334
Ace1
Agam1 --SKLSDAVECLRGKDPHVLVNNEMGTL-GICEFPFVPVVDGAFLDETPQRSLASGRFKKTEILTGSNTEEGYYFIIYYLTELLRKEEGVTVTREEFLQA
Sgra --NTIHKTVECLRKANSSVMVEKEMDHV-AICFFPFVPVVDGAFLDDHPQKSLSTNNFKKTNILMGSNSEEGYYSIFYYLTELFKKEENVMVSRENFIKA
Ace2
Agam2 LKESPSTVMDQMRVMDAKTISVCQMNSYSGILGFPSAPTIDGVFMTADPMTMLREANLEGIDILVGSNRDEGTYFLLYDFIDYFDKDQATSLPRDKYLEI
Aste LKESPSTVMDQMRVMDAKTISVCQMNSYSGILGFPSAPTIDGVFMTADPMTMLREANLEGIDILVGSNRDEGTYFLLYDFIDYFEKDAATSLPRDKFLEI
Aaeg2 LKDNPNYVMNQMRVMDAKTISVCQMNSYSGILGFPSAPTIDGVFMTADPMTMLREANLEGVEILVGSNRDEGTYFLLYDFIDYFEKDAATSLPRDHFLEI
Dme1 LKTNPAHVMSQMRSMDAKTISVCQMNSYSGILSFPSAPTIDGAFLPADPMTLMKTADLKDYDILMGNVRDEGTYFLLYDFIDYFEKDAATSLPRDAFLEI
Lcup LPANPQSVMAQMRAMDAKTISVCQMNSYSGILSFPSAPTIDGAFLPADPMTLMKTADMSGYDIMIGNVKDEGTYFLLYDFIDYFDKDDATALPRDKYLEI
Mdom LPENPQAVMAQMRQMDAKTISVCQMNSYSGILSFPSAPTIDGAFLPADPMTLLKTADLSGYDILIGNVKDEGTYFLLYDFIDYFDKDEATSLPRDKYLEI
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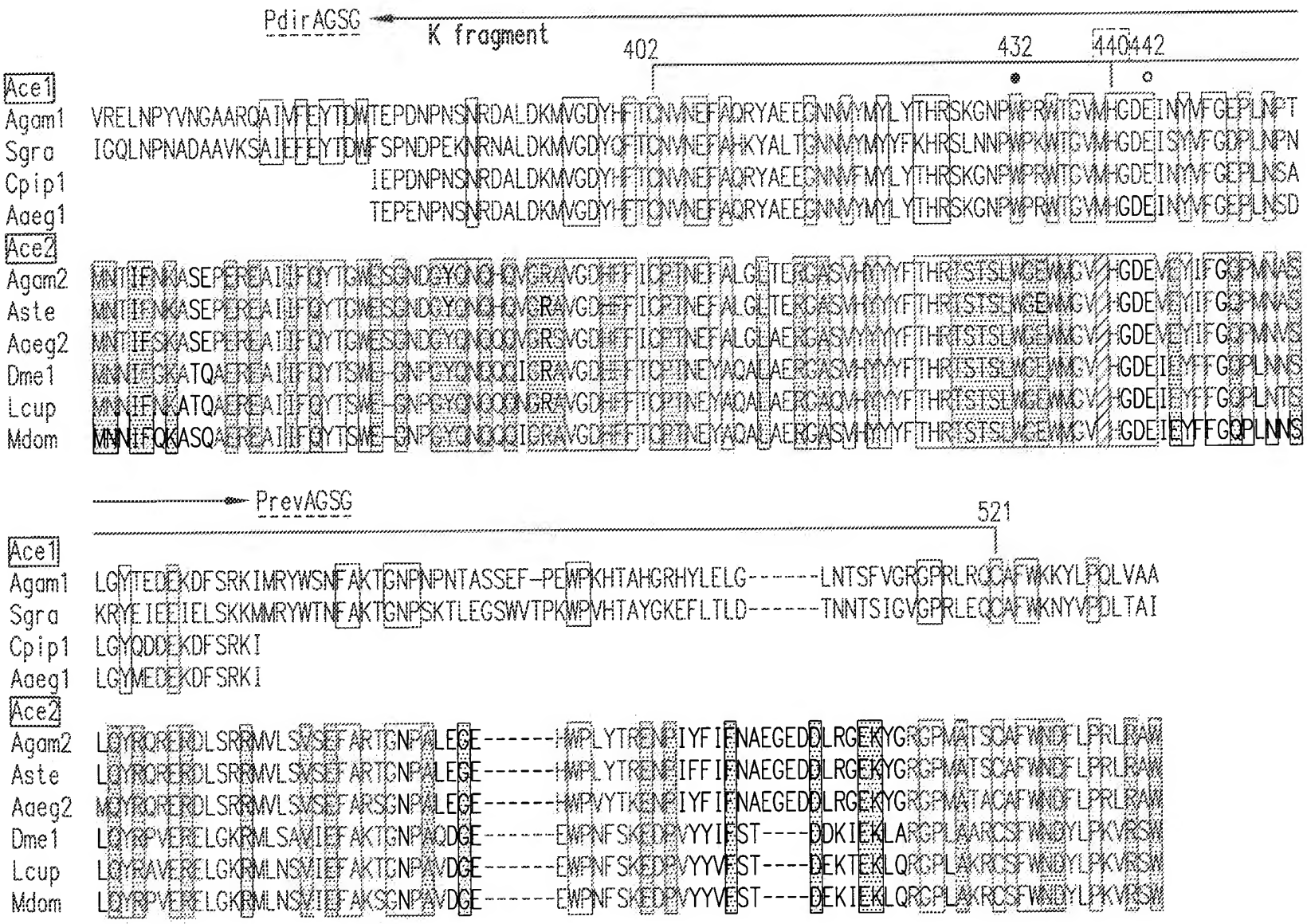
Fig.1B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K fragment
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432
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Ace1
Agam1
Sgra
Cpip1
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Ace2
Agam2
Aste
Aaeg2
Dme1
Lcup
Mdom
PrevAGSG
521

Fig.1C

```
          1                                                                  80
Ae alb    TEPENPNSNR DALDKMVGDY HFTCNVNEFA QRYAEEGNNV YMYLYTHRSK GNPWPRWTGV MHGDEINYVF GEPLNGDLGY
Ae aeg    TEPENPNSNR DALDKMVGDY HFTCNVNEFA QRYAEEGNNV YMYLYTHRSK GNPWPRWTGV MHGDEINYVF GEPLNGDLGY
An alb    TEPDNPNSNR DALDKMVGDY HFTCNVNEFA QRYAEEGNNV YMYLYTHRSK GNPWPRWTGV MHGDEINYVF GEPLNPTLGY
An gam    TEPDNPNSNR DALDKMVGDY HFTCNVNEFA QRYAEEGNNV YMYLYTHRSK GNPWPRWTGV MHGDEINYVF GEPLNPTLGY
An fun    TEPDNPNSNR DALDKMVGDY HFTCNVNEFA QRYAEEGNNV YMYLYTHRSK GNPWPRWTGV MHGDEINYVF GEPLNPSLGY
An nil    TEPDNPNSNR DALDKMVGDY HFTCNVNEFA QRYAEEGNNV YMYLYTHRSK GNPWPRWTGV MHGDEINYVF GEPLNPSLGY
An sac    TEPDNPNSNR DALDKMVGDY HFTCNVNEFA QRYAEEGNNV YMYLYTHRSK GNPWPRWTGV MHGDEINYVF GEPLNPSLGY
An pse    TEPDNPNSNR DALDKMVGDY HFTCNVNEFA QRYAEEGNNV YMYLYTHRSK GNPWPRWTGV MHGDEINYVF GEPLNPGLGY
Cx Pip    TEPDNPNSNR DALDKMVGDY HFTCNVNEFA QRYAEEGNNV FMYLYTHRSK GNPWPRWTGV MHGDEINYVF GEPLNGALGY

             81        91
Ae alb    MDDEKDFSRK I
Ae aeg    MEDEKDFSRK I
An alb    TDDEKGFSRK I
An gam    TEDEKDFSRK I
An fun    TEDEKDFSRK I
An nil    TEDEKDFSRK M
An sac    TEDEKDFSRK I
An pse    TEDEKDFSRK I
Cx Pip    QDDEKDFSRK I
```

Fig.2A

```
                    *        20        *        40        *        60        *        80
Ace1-SLAB   ATTGAACCGGACAACCCGAACAGCAACCGTGACGCGCTGGACAAGATGGTCGGGGATTATCACTTCACCTGCAACGTGAA
Ace1-SR     ATCGAACCGGACAACCCGAACAGCAACCGTGACGCGCTCGACAAGATGGTCGGGGATTATCACTTCACCTGCAACGTGAA

            EcoRI   *       100       *       120       *       140       *       160
Ace1-SLAB   CGAATTCGCCCAGCGGTACGCCGAGGAGGGCAACAACGTGTTCATGTACCTGTACACGCACAGAAGCAAAGGAAATCCCT
Ace1-SR     CGAGTTCGCCCAGCGGTACGCCGAGGAGGGCAACAATGTGTTCATGTACCTGTACACGCACAGAAGCAAAGGAAATCCCT

                    *       180       *       200       *       220       *       240
Ace1-SLAB   GGCCGAGGTGGACCGGCGTGATGCACGGCGACGAGATCAACTACGTGTTTGGCGAACCGCTGAACTCGGCCCTCGGCTAC
Ace1-SR     GGCCGAGGTGGACTGGCGTGATGCACGGCGACGAGATCAACTACGTGTTTGGCGAACCGCTGAACTCGGCCCTCGGCTAC

                        *       260       *
Ace1-SLAB   CAGGACGACGAGAAGGACTTTAGCCGGAAAATT
Ace1-SR     CAGGACGACGAGAAGGACTTTAGCCGGAAAATT
```

Fig.2B

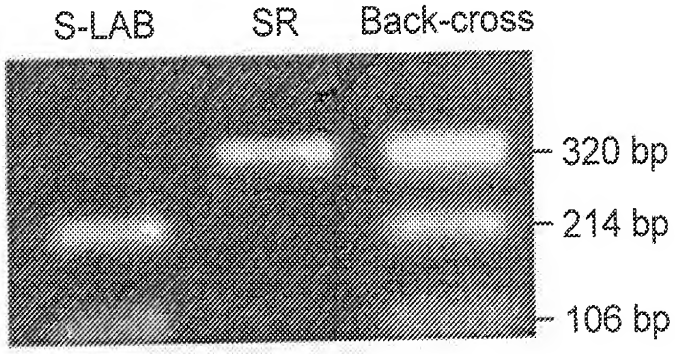
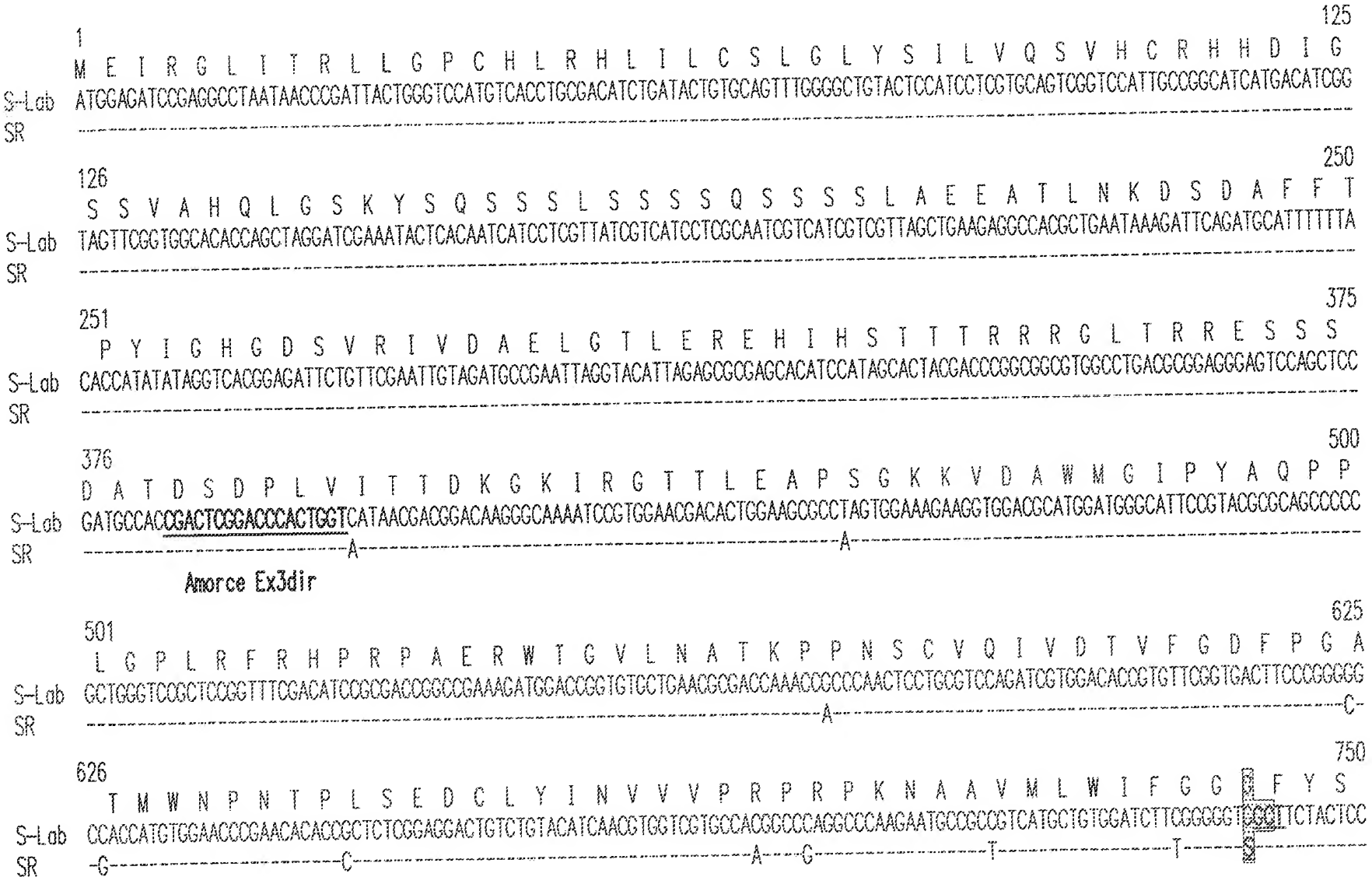


Fig.2C

```
          1                                                                 80
SR        MEIRGLITRL LGPCHLRHLI LCSLGLYSIL VQSVHCRHHD IGSSVAHQLG SKYSQSSSLS SSSQSSSSLA EEATLNKDSD
S-LAB     MEIRGLITRL LGPCHLRHLI LCSLGLYSIL VKSVHCRHHD IGSSVAHQLG SKYSQSSSLS SSSQSSSSLA EEATLNKDSD

          81                                                                160
SR        AFFTPYIGHG DSVRIVDAEL GTLEREHIHS TTTRRRGLTR RESSSDATDS DPLVITTDKG KIRGTTLEAP SGKKVDAWMG
S-LAB     AFFTPYIGHG DSVRIVDAEL GTLEREHIHS TTTRRRGLTR RESSSDATDS DPLVITTDKG KIRGTTLEAP SGKKVDAWMG

          161                                                               240
SR        IPYAQPPLGP LRFRHPRPAE RWTGVLNATK PPNSCVQIVD TVFGDFPGAT MWNPNTPLSE DCLYINVVVP RPRPKNAAVM
S-LAB     IPYAQPPLGP LRFRHPRPAE RWTGVLNATK PPNSCVQIVD TVFGDFPGAT MWNPNTPLSE DCLYINVVVP RPRPKNAAVM

          241                                                               320
SR        LWIFGGSFYS GTATLDVYDH RTLASEENVI VVSLQYRVAS LGFLFLGTPE APGNAGLFDQ NLALRWVRDN IHRFGGDPSR
S-LAB     LWIFGGSFYS GTATLDVYDH RTLASEENVI VVSLQYRVAS LGFLFLGTPE APGNAGLFDQ NLALRWVRDN IHRFGGDPSR

          321                                                               400
SR        VTLFGESAGA VSVSLHLLSA LSRDLFQRAI LQSGSPTAPW ALVSREEATL RALRLAEAVN CPHDATKLSD AVECLRTKDP
S-LAB     VTLFGESAGA VSVSLHLLSA LSRDLFQRAI LQSGSPTAPW ALVSREEATL RALRLAEAVN CPHDATKLSD AVECLRTKDP

          401                                                               480
SR        NELVDNEWGT LGICEFPFVP VVDGAFLDET PQRSLASGRF KKTDILTGSN TEEGYYFIIY YLTELLRKEE GVTVTREEFL
S-LAB     NELVDNEWGT LGICEFPFVP VVDGAFLDET PQRSLASGRF KKTDILTGSN TEEGYYFIIY YLTELLRKEE GVTVTREEFL

          481                                                               560
SR        QAVRELNPYV NGAARQAIVF EYTDWIEPDN PNSNRDALDK MVGDYHFTCN VNEFAQRYAE EGNNVFMYLY THRSKGNPWP
S-LAB     QAVRELNPYV NGAARQAIVF EYTDWIEPDN PNSNRDALDK MVGDYHFTCN VNEFAQRYAE EGNNVFMYLY THRSKGNPWP

          561                                                               620
SR        RWTGVMHGDE INYVFGEPLN SALGYQDDEK DFSRKIMRYW SNFAKTGNPN PSTPSVDLPE WPKHTAHGRH YLELGLNTTF
S-LAB     RWTGVMHGDE INYVFGEPLN SALGYQDDEK DFSRKIMRYW SNFAKTGNPN PSTPSVDLPE WPKHTAHGRH YLELGLNTTF

          621                                                         702
SR        VGRGPRLRQC AFWKKYLPQL VAATSNLQVT PAPSVPCESS STSYRSTLLL IVTLLLVTRF KI
S-LAB     VGRGPRLRQC AFWKKYLPQL VAATSNLQVT PAPSVPCESS STSYRSTLLL IVTLLLVTRF KI
```

Fig.5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125
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S-Lab ATGGAGATCCGAGGCCTAATAACCCGATTACTGGGTCCATGTCACCTGCGACATCTGATACTGTGCAGTTTGGGGCTGTACTCCATCCTCGTGCAGTCGGTCCATTGCCGGCATCATGACATCGG
SR
126
250
S S V A H Q L G S K Y S Q S S S L S S S S Q S S S S L A E E A T L N K D S D A F F T
S-Lab TAGTTCGGTGGCACACCAGCTAGGATCCAAATACTCACAATCATCCTCGTTATCGTCATCCTCGCAATCGTCATCGTCGTTAGCTGAAGAGCCCACGCTGAATAAAGATTCAGATGCATTTTTTA
SR
251
375
P Y I G H G D S V R I V D A E L G T L E R E H I H S T T T R R R G L T R R E S S S
S-Lab CACCATATATAGGTCACGGAGATTCTGTTCGAATTGTAGATGCCGAATTAGGTACATTAGAGCGCGAGCACATCCATAGCACTACCACCCGGCGGCGTGGCCTGACGCGGAGGGAGTCCAGCTCC
SR
376
500
D A T D S D P L V I T T D K G K I R G T T L E A P S G K K V D A W M G I P Y A Q P P
S-Lab GATGCCACCGACTCGGACCCACTGGTCATAACGACGGACAAGGGCAAAATCCGTGGAACGACACTCGAAGCGCCTAGTGGAAAGAAGGTGGACGCATGGATGGGCATTCCGTACGCGCAGCCCCC
SR -----A----------A----------
Amorce Ex3dir
501
625
L G P L R F R H P R P A E R W T G V L N A T K P P N S C V Q I V D T V F G D F P G A
S-Lab GCTGGGTCCGCTCCGGTTTCGACATCCGCGACCGGCCGAAAGATGGACCGGTGTCCTGAACGCGACCAAACCCCCCAACTCCTGCGTCCAGATCGTGGACACCGTGTTCGGTGACTTCCCCGGGG
SR -----A----------C-
626
750
T M W N P N T P L S E D C L Y I N V V V P R P R P K N A A V M L W I F G G F Y S
S-Lab CCACCATGTGGAACCCGAACACACCGCTCTCGGAGGACTGTCTGTACATCAACGTGGTCGTGCCACGCCCCAGGCCCAAGAATGCCGCCGTCATGCTGTGGATCTTCGGGGGTTCGTTCTACTCC
SR -G----------C----------A----G----------T----------T----S----------

Fig.6A

```
                                                                                                  875
          751
          G  T  A  T  L  D  V  Y  D  H  R  T  L  A  S  E  E  N  V  I  V  V  S  L  Q  Y  R  V  A  S  L  G  F  L  F  L  G  T  P  E  A  P
S-Lab     GGGACTGCCACGCTGGACGTGTACGACCATCGGACGCTGGCCTCGGAGGAGAACGTGATCGTAGTTTCGCTGCAGTACCGTGTCGCAAGTCTTGGGTTTCTCTTCCTCGGCACACCGGAGGCACC
SR        ----------T----------T--------------------------------G--------------------------------T----------T----------

                                                                                                 1000
          876
           G  N  A  G  L  F  D  Q  N  L  A  L  R  W  V  R  D  N  I  H  R  F  G  G  D  P  S  R  V  T  L  F  G  E  S  A  G  A  V  S  V  S
S-Lab     CCGTAACGCCGGGGCTGTTTGATCAGAACCTGGCACTGAGATGGGTCCGCGACAACATCCACCGGTTCGGCGGTGACCCCTCGCGGGTCACACTGTTCGGCGAGAGCGCCGGAGCGGTCTCGGTTT
SR        T---------------------------------------------------------------------------------------------------------------------------

                  Amorce Ex3rev

                                                                                                 1125
          1001
            L  H  L  L  S  A  L  S  R  D  L  F  Q  R  A  I  L  Q  S  G  S  P  T  A  P  W  A  L  V  S  R  E  E  A  T  L  R  A  L  R  L
S-Lab     CGCTGCACCTGCTGTCGGCGCTCTCGCGGGACCTGTTCCAGCGGGCCATCCTCCAGAGTGGCTCCCCGACGGCCCCGTGGCGCCTGGTTTCGCGCGAAGAAGCTACGCTTAGAGCTCTTCGTCTG
SR        ---------------------------------------------------------------A---------------------------------------------------------

                                                                                                 1250
          1126
          A  E  A  V  N  C  P  H  D  A  T  K  L  S  D  A  V  E  C  L  R  T  K  D  P  N  E  L  V  D  N  E  W  G  T  L  G  I  C  E  F  P
S-Lab     GCCCAGGCCGTCAACTGTCCGCACGATGCGACCAAGCTGAGCGATGCCGTCGAATGCCTGCGAACCAAGGATCCGAACGAGCTGGTCGACAACGAGTGGGGCACGCTGGGGATCTGCGAGTTTCC
SR        ----------------------------------------------------T----------------------------------T----------------------------------

                                                                                                 1375
          1251
          F  V  P  V  V  D  G  A  F  L  D  E  T  P  Q  R  S  L  A  S  G  R  F  K  K  T  D  I  L  T  G  S  N  T  E  E  G  Y  Y  F  I  I
S-Lab     GTTCGTTCCGGTTGTGGACGGAGCCTTCCTCGATGAGACACCGCAGCGTTCGTTGGCCAGCGGGCGCTTCAAGAAAACGGACATCCTGACCGGCAGCAACACCGAGGAGGGTTACTACTTTATCA
SR        ----------T---------------------------------------T---------------------------------------------------------------------

                                                                                                 1500
          1376
           Y  Y  L  T  E  L  L  R  K  E  E  G  V  T  V  T  R  E  E  F  L  Q  A  V  R  E  L  N  P  Y  V  N  G  A  A  R  Q  A  I  V  F
S-Lab     TTTACTATCTAACCGAGCTGCTCAGGAAAGAGGAAGGGGTCACGGTAACACGCGAGGAGTTCCTACAGGCCGTCCGGCAGTTGAATCCGTACGTGAACGGTGCCGCCCGGCAGGCCATCGTGTTC
SR        ---------------------------------------------------------------------------------------------------------------------------
```

Fig.6B

1501 1625

E Y T D W I E P D N P N S N R D A L D K M V G D Y H F T C N V N E F A Q R Y A E E G

S-Lab GAGTACACGGACTGGATTGAACCGGACAACCCGAACAGCAACCGTGACGCGCTGGACAAGATGGTCGGGGATTATCACTTCACCTGCAACGTGAACGAATTCGCCCAGCGGTACGCCGAGGAGGG

SR ----------C----------C----------G----------

1626 1750

N N V F M Y L Y T H R S K G N P W P R W T G V M H G D E I N Y V F G E P L N S A L G

S-Lab CAACAACGTGTTCATGTACCTGTACACGCACAGAAGCAAAGGAAATCCCTGGCCGAGGTGGACCGGCGTGATGCACGGCGACGAGATCAACTACGTGTTTGGCGAACCGCTGAACTCGGCCCTCG

SR ------T----------T----------

1751 1875

Y Q D D E K D F S R K I M R Y W S N F A K T G N P N P S T P S V D L P E W P K H T

S-Lab GCTACCAGGACGACGAGAAGGACTTTAGCCGGAAAATTATGCGATACTGGTCCAACTTTGCCAAGACTGGCAATCCCAACCCGAGTACGCCGAGCGTGGACCTGCCCGAATGGCCCAAGCACACC

SR ----------

1876 2000

A H G R H Y L E L G L N T T F V G R G P R L R Q C A F W K K Y L P Q L V A A T S N L

S-Lab GCCCACGGCACGACACTATCTGGAGCTGGGACTGAACACGACCTTCGTGGGACGGGGCCCCACGATTGCGGCAGTGCGCTTTCTGGAAGAAATATTTGCCGCAACTAGTAGCAGCTACCTCTAACCT

SR ----------

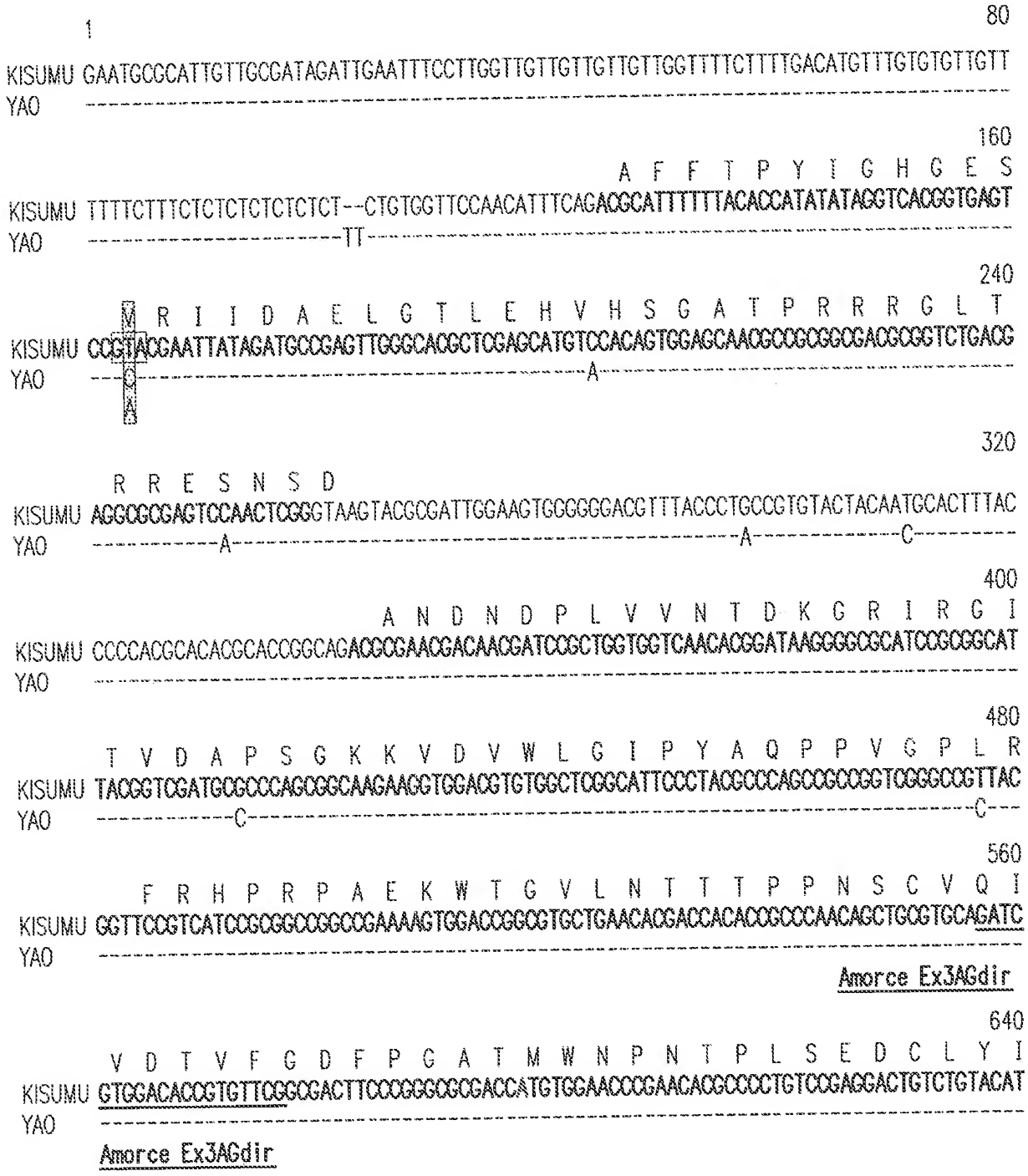
2001 2109

Q V T P A P S V P C E S S S T S Y R S T L L L I V T L L L V T R F K I *

S-Lab CCAAGTAACTCCCGCGCCTAGCGTACCTTGCGAAAGCAGCTCAACATCTTATCGATCCACTCTACTTCTAATAGTCACACTACTTTTAGTAACGCGGTTCAAGATTTAA

SR ----------

Fig.6C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YAO
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KISUMU TTTTCTTTCTCTCTCTCTCTCT--CTGTGGTTCCAACATTTCAGACGCATTTTTTTACACCATATATACGTCACGGTGAGT
YAO TT
240
M R I I D A E L G T L E H V H S G A T P R R R G L T
KISUMU CCGTACGAATTATAGATGCCGAGTTGGGCACGCTCGAGCATGTCCACAGTGGAGCAACGCCGCGGCGACGCGGTCTGACG
YAO A
320
R R E S N S D
KISUMU AGGCGCGAGTCCAACTCGGGTAAGTACGCGATTGGAAGTGGGGCGACGTTTACCCTGCCGTGTACTACAATGCACTTTAC
YAO A A C
400
A N D N D P L V V N T D K G R I R G I
KISUMU CCCCACGCACACGCACCGGCAGACGCGAACGACAACGATCCGCTGGTGGTCAACACGGATAAGGGGCGCATCCGCGGCAT
YAO
480
T V D A P S G K K V D V W L G I P Y A Q P P V G P L R
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YAO C C
560
F R H P R P A E K W T G V L N T T T P P N S C V Q I
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YAO
Amorce Ex3AGdir
640
V D T V F G D F P G A T M W N P N T P L S E D C L Y I
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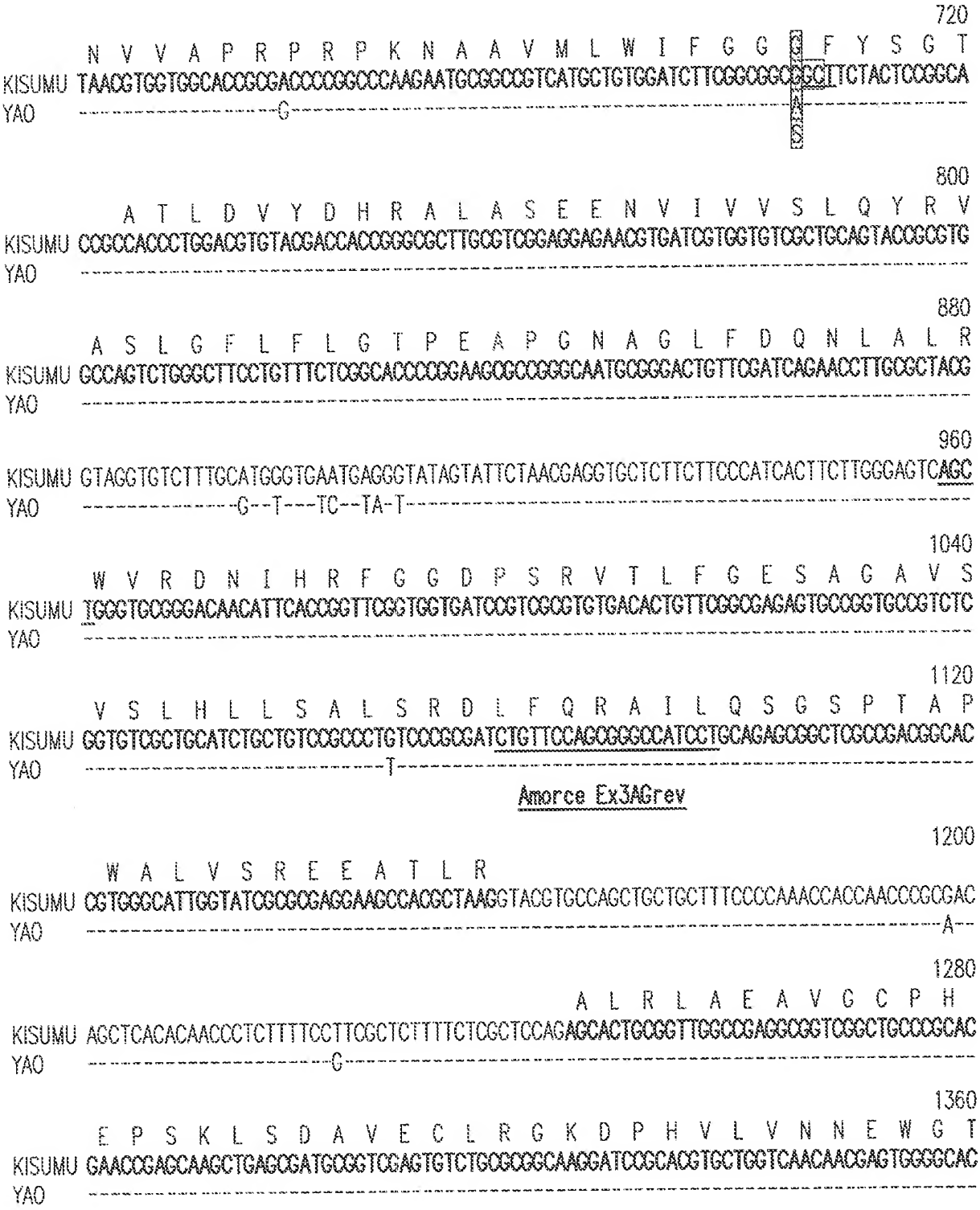
YAO
Amorce Ex3AGdir

Fig. 9A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YAO ----------G----------
SNP
800
A T L D V Y D H R A L A S E E N V I V V S L Q Y R V
KISUMU CCGCCACCCTGGACGTGTACGACCACCGCGGCGCTTGCGTCGGAGGAGAACGTGATCGTGGTGTCGCTGCAGTACCGCGTG
YAO ----------
880
A S L G F L F L G T P E A P G N A G L F D Q N L A L R
KISUMU GCCAGTCTGGGCTTCCTGTTTCTCGGCACCCCGGAAGCGCCCGGCAATGCGGGACTGTTCGATCAGAACCTTGCGCTACG
YAO ----------
960
KISUMU GTAGGTGTCTTTGCATGCGTCAATGAGGGTATAGTATTCTAACGAGGTGCTCTTCTTCCCATCACTTCTTGGGAGTCAGC
YAO ----------G--T---TC--TA-T----------
1040
W V R D N I H R F G G D P S R V T L F G E S A G A V S
KISUMU TGGGTGCGGGACAACATTCACCGGTTCGGTGGTGATCCGTCGCGTGTGACACTGTTCGGCGAGAGTGCCCGTGCCGTCTC
YAO ----------
1120
V S L H L L S A L S R D L F Q R A I L Q S G S P T A P
KISUMU GGTGTCGCTGCATCTGCTGTCCGCCCTGTCCCGCGATCTGTTCCAGCGGGCCATCCTGCAGAGCGGCTCGCCGACGGCAC
YAO ----------T----------
Amorce Ex3AGrev
1200
W A L V S R E E A T L R
KISUMU CGTGGGCATTGGTATCGCGCGAGGAAGCCACGCTAAGGTACGTGCCAGCTGCTGCTTTCCCCAAACCACCAACCCGCGAC
YAO ----------A--
1280
A L R L A E A V G C P H
KISUMU AGCTCACACAACCCTCTTTTCCTTCGCTCTTTTCTCGCTCCAGAGCACTGCGGTTGGCCGAGGCGGTCGGCTGCCCCACAC
YAO ----------C----------
1360
E P S K L S D A V E C L R G K D P H V L V N N E W G T
KISUMU GAACCGAGCAAGCTGAGCGATGCGGTCGAGTGTCTGCGCGGCAAGGATCCGCACGTGCTGGTCAACAACGAGTGGGGCAC
YAO ----------

Fig.9B

1440

L G I C E F P F V P V V D G A F L D E T P Q R S L A S

KISUMU GCTCGGCATTTGCGAGTTCCCGTTCGTGCCGGTGGTCGACGGTGCGTTCCTGGACGAGACGCCGCAGCGTTCGCTCGCCA
YAO ----------

1520

G R F K K T E I L T G S N T E E G Y Y F I I Y Y L T

KISUMU GCGGGCGCTTCAAGAAGACGGAGATCCTCACCGGCAGCAACACGGAGGAGGGCTACTACTTCATCATCTACTACCTGACC
YAO ----------

1600

E L L R K E E G V T V T R E E F L Q A V R E L N P Y V

KISUMU GAGCTGCTGCGCAAGGAGGAGGGCGTGACCGTGACGCGCGAGGAGTTCCTGCAGGCGGTGCGCGAGCTCAACCCGTACGT
YAO ----------

1680

N G A A R Q A I V F E Y T D W T E P D N P N S N R D A

KISUMU GAACGGGGCGGCCCCGGCAGGCGATCGTGTTCGAGTACACCGACTGGACCGAGCCGGACAACCCGAACAGCAACCGGGACG
YAO ----------

1760

L D K M V G D Y H F T C N V N E F A Q R Y A E E G N

KISUMU CGCTGGACAAGATGGTGGGCGACTATCACTTCACCTGCAACGTGAACGAGTTCGCGCAGCGGTACGCCGAGGAGGGCAAC
YAO ----------

1840

N V Y M Y L Y T H R S K G N P W P R W T G V M H G D E

KISUMU AACGTCTACATGTATCTGTACACGCACCGCAGCAAAGGCAACCCGTGGCCGCGCTGGACGGGCGTGATGCACGGCGACGA
YAO ----------

1920

I N Y V F G E P L N P T L G Y T E D E K D F S R K I M

KISUMU GATCAACTACGTGTTCGGCGAACCGCTCAACCCCACCCTCGGCTACACCGAGGACGAGAAAGACTTTAGCCGGAAGATCA
YAO ----------

2000

R Y W S N F A K T G

KISUMU TGCGATACTGGTCTAACTTTGCCAAAACCGGGTAAGTGTGTGTGTGTGTGTGTGTCAAACAGCAGAGTGTCGATCGCTCT
YAO ---------- ---------A----C-A--A-----

2080

N P N P N T A S S E F P E W P K H T

KISUMU AACGCC------TTCTCTCTTCAACAGCAATCCAAATCCCAACACGGCCAGCAGCGAATTCCCCGAGTGGCCCAAGCACA
YAO ---A--AGCGTC----------T----------A----------

Fig. 9C

```
                                                                                                    2160
                A  H  G  R  H  Y  L  E  L  G  L  N  T  S  F  V  G  R  G  P  R  L  R  Q  C  A
KISUMU CCGCCCACGGACGGCACTATCTGGAGCTGGGCCTCAACACGTCCTTCGTCGGTCGGGGCCCACGGTTGAGGCAGTGTGCC
YAO    ----------------------------------------------------------------------------------------

                                                                                                    2240
                F  W  K  K  Y  L  P  Q  L  V  A  A  T  S
KISUMU TTCTGGAAGAAGTACCTTCCCCAGCTAGTTGCAGCTACCTGTAAGTCTCGT-GCAGCGCTTGAAATCCTCTCCCGCATCC
YAO    ----------------------------------------A--T--T--A-GA----C--C---T---G---

                                                                                                    2320
                                                                                          N  L  P  G
KISUMU TCAACAGGGTCCAGGTTGCAATAACAAATGTATCTCTCTCTCTCTCACGTCTCTTTTCCCCAAAACAGCGAACCTACCAG
YAO    C--T----------A-A-------------------------     ----A-----------------------------

                                                                                                    2400
                P  A  P  P  S  E  P  C  E  S  S  A  F  F  Y  R  P  D  L  I  V  L  L  V  S  L
KISUMU GGCCAGCACCGCCCAGTGAACCGTGCGAAAGCAGCGCATTTTTTTACCGACCTGATCTGATCGTGCTGCTGGTGTCGCTG
YAO    ----------------------------------------------------------------------------------------

                                                                                                    2480
                L  T  A  T  V  R  F  I  Q  *
KISUMU CTTACGGCGACCGTCAGATTCATACAATAATTACTACCCCATCCATGGCCTAGTTCTTTTAAGCTTTAAGATAGTGAGGA
YAO    ----------------------------------------------------------G-----------------------

KISUMU ACAAATTTTTTCCTAACCAATTTCCCAACCCCCTTTAGAGCAGAACCGAGGGAGAGATAGGACT
YAO    ------------------------- ------------------------------------------------------
```

Fig. 9D

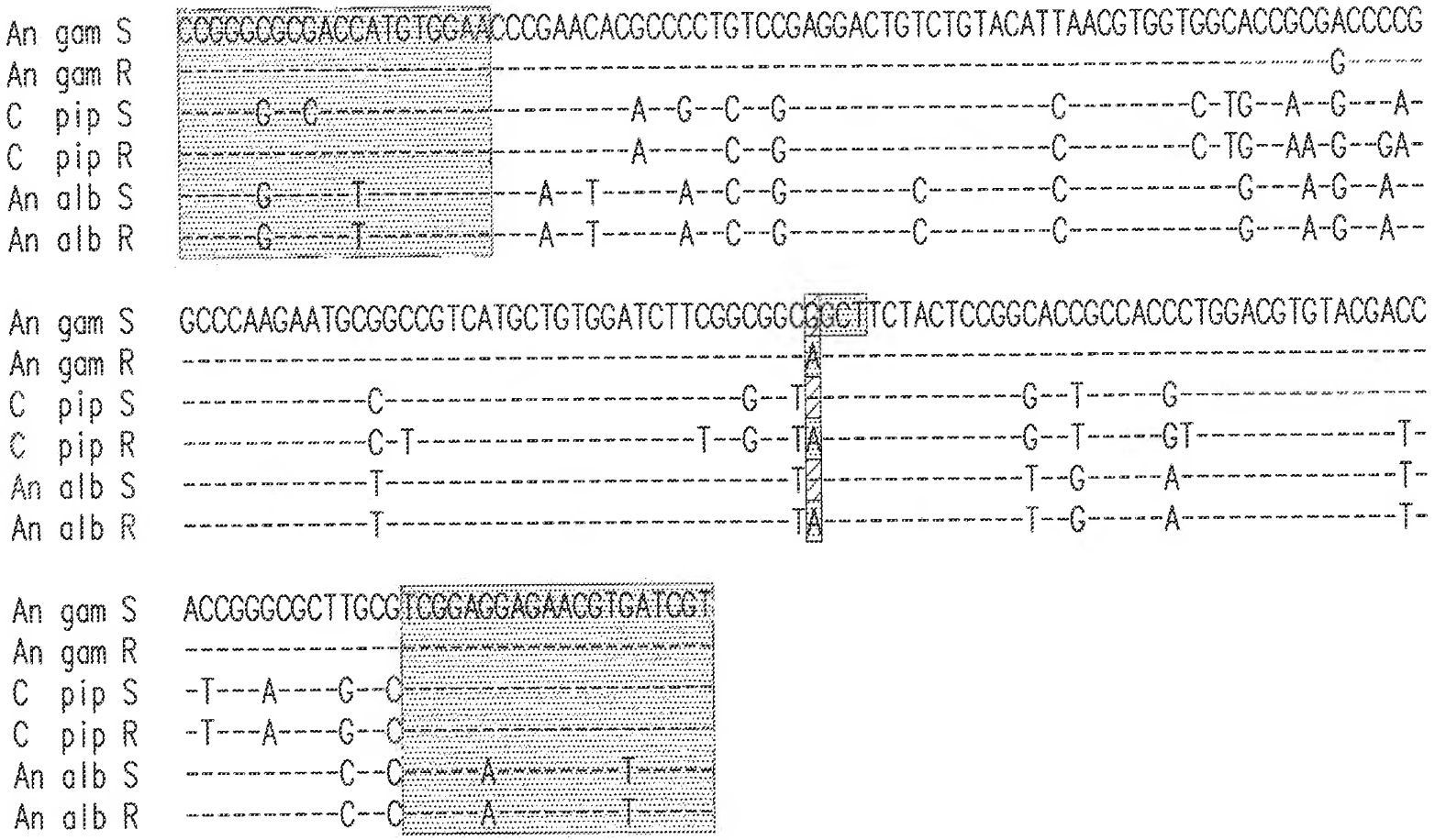
An gam S
An gam R
C pip S
C pip R
An alb S
An alb R
CCGGCGCCGACCATGTGGAACCCGAACACGCCCCTGTCCGAGGACTGTCTGTACATTAACGTGGTGGCACCGCGACCCCG
GCCCAAGAATGCGGCCGTCATGCTGTGGATCTTCGGCGGCGGCTTCTACTCCGGCACCGCCACCCTGGACGTGTACGACC
ACCGGGCGCTTGCGTCGGAGGAGAACGTGATCGT

Fig.13

>An. albi. "S"
CCGGGGGCGACTATGTGGAACCCAAATACGCCACTCTCGGAGGACTGCCTGTACATCAACGTGGTGCGCGCCGAGGCCACGGCCCAAGAATGCTGCCGTCATGCTGTGGATCTTCGG
CGGTGGCTTCTACTCCGGTACGGCCACACTGGACGTGTACGATCACCGGGCGCTCGCCTCGGAAGAGAACGTTATCGT

>An. albi. "R"
CCGGGGGCGACTATGTGGAACCCAAATACGCCACTCTCGGAGGACTGCCTGTACATCAACGTGGTGGCGCCGAGGCCACGGCCCAAGAATGCTGCCGTCATGCTGTGGATCTTCGG
CGGTAGCTTCTACTCCGGTACGGCCACACTGGACGTGTACGATCACCGGGCGCTCGCCTCGGAAGAGAACGTTATCGT

Fig.14